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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PHAM, HUNG Q

ART UNIT	PAPER NUMBER
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2172

DATE MAILED: 02/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/493,220

Applicant(s)

LENNON, ALLISON JOAN

Examiner

HUNG Q PHAM

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18,32-53,67-71,74,117 and 118 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18,32-53,67-71,74,117 and 118 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicants amended claims 1-18, 32-53, 67-71, and 74, added claims 117-118 in the amendment received on 12/31/2002. The pending claims are 1-18, 32-53, 67-71, 74, and 117-118. Applicant's arguments with respect to claims 1, 32, 36, 67, 71, and 74 have been considered, but they are not persuasive.

2. In response to applicant's arguments, the recitation as in the amendment (page 15): *...a description of a resource being separate from the resource...* has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1-18, 32-53, 67-71, 74, and 117-118 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeRose et al. [USP 5,708,806].

Regarding to claims 1, 36 and 71, DeRose teaches a method and system for generating a representation of an electronic document and navigating the electronic document using its representation and for displaying the electronic document on an output device. The electronic document is considered as an *electronically-accessible resource*. The system and method are used with electronic documents having descriptive markup, which describes the content or meaning of the document rather than its appearance. Each markup element defines a node or element in a tree. The tree is represented by providing a unique identifier for each element and for accessing a descriptor of the element. The tree is displayed to a user as a table of content as *descriptions of the resources*. An element descriptor preferably includes indications of the parent, first child, last child, left sibling, right sibling, type name and text location for the element (DeRose, Abstract, FIG. 3, and FIG. 12). The DeRose method and system receives as its input a document, represented in electronic form, which includes text content, descriptive markup and possibly non-text content. The descriptive markup of an input document is interpretable as an ordered hierarchy of content objects as illustrated in FIG. 3 (DeRose, Col. 7, line 60-Col. 8, line 7). As shown in FIG. 8 is the process for generating an element directory. The process is initialized at step 110, and the token

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from the parser is retrieved at step 112 (DeRose, Col. 10, line 36-Col. 12, line 52). This technique indicates the step of *reading the descriptions*. DeRose does not explicitly teaches the steps of *displaying items, each item being associated with a corresponding descriptor component of a description read in said reading step that has at least one attribute; browsing the descriptions of the resources and their corresponding electronically-accessible resources via the links using the displayed items*. However, DeRose teaches that in a document, an element, e.g. element 50 of FIG. 3, may have a parent element (52), a first child element (54), a last child element (56), a left sibling element (58), and a right sibling element (60). Because the right sibling of element 50 does not exist in the document, it is defined by "nil", or some non-element identifier. A document may also include other types of elements which do not describe function, meaning or appearance of the text. These types of elements include cross-referencing elements 62 which may be used to link relevant sections of a document or even separate documents. Artwork elements 64 may be used to point to non-text objects, such as graphic raster files, which also may be separate electronic documents (DeRose, Col. 8, lines 8-27). The DeRose FIG. 5 is a representation of the tree structure generated from the sample SGML document of FIG. 4. Each element as *item* defined by the markup structure of the SGML such as BOOK, FRONT MATTER, TITLE, AUTHOR... is assigned a reference numbers, or element identifiers, to each element appearing in the document according to the order of appearance of these elements in the document. As shown in FIG. 6, the element directory 91 is used to improve navigation of the document. As shown in FIG. 12, the table of contents displaying items corresponding to an electronic document. As

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discussed above and in short, the DeRose technique indicates the step of *displaying items, each item being associated with a corresponding descriptor component of a description read in said reading step that has at least one attribute*. As in the DeRose FIGS. 12-14, when the table of contents is displayed on the screen, the title for the first element in the table of contents file is displayed. A section of the table of contents may then be expanded, for example, responsive to a mouse event or other indication by a user, by displaying the titles for any immediate sub-elements of a selected displayed element and for subsequent elements which were in the original display. The rendering of the text for the table of contents may be performed in the same manner as a document (DeRose, Col. 17, lines 3-16). By using annotations as a structure for attaching information to a document, annotations may be made in a manner well known to hypertext systems, known as a web, a type of annotation list. A web is a possibly indexed list of anchor-sets. Each anchor-set represents a hypertext link between the anchors in the set. Each anchor refers to a location in a document and specifies a name for the data representation used by the document. The location in an anchor-set may be a document name, a markup tag in a document, a graphics file, another computer process, or other representations (DeRose, Col. 23, line 57-Col. 24, line 30). In short, the DeRose rendering and annotation technique indicates the step of *browsing the descriptions of the resources and their corresponding electronically-accessible resources via the links using the displayed items*. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose method by including the steps of displaying items that associated with a corresponding

descriptor component, browsing the descriptions of the resource, and by doing this, an electronic document could be navigated by using its representation.

Regarding to claims 117, and 118, DeRose teaches all the claimed subject matters as discussed in claims 1, and 36, DeRose further discloses: *the attributes are representative of at least two axes of access to the resources* (DeRose, FIG. 12).

Regarding to claims 2 and 37, DeRose teaches all the claimed subject matters as discussed in claims 1 and 36, DeRose further discloses: *description is represented by a tree of descriptor components, and one or more of said descriptor components have descriptor components as descendents* (DeRose, FIG. 3, Col. 7, line 60-Col. 8, line 27).

Regarding to claims 3 and 38, DeRose teaches all the claimed subject matters as discussed in claims 117 and 118, DeRose further discloses: *one of said axes of access is a table of contents classification* (DeRose, FIG. 12, Col. 16, line 44-Col. 17, line 16).

Regarding to claims 4 and 39, DeRose teaches all the claimed subject matters as discussed in claims 117 and 118, DeRose further discloses: *one of said axes of access is an index classification* (DeRose, FIG. 12, Col. 13, lines 4-19 and Col. 15, lines 24-30).

Regarding to claims 5 and 40, DeRose teaches all the claimed subject matters as discussed in claims 1 and 36, DeRose further discloses: *the descriptions of the*

resources are generated using a description scheme as a template, and the description scheme uses a declarative description definition language which contains definitions for descriptor components of the descriptions of the resources (DeRose, Col. 8, line 41-Col. 9, line 11).

Regarding to claims 6 and 41, DeRose teaches all the claimed subject matters as discussed in claims 5 and 40, DeRose further discloses: *the attributes of the descriptor components are defined in the description scheme* (DeRose, Col. 8, line 41-Col. 9, line 11).

Regarding to claims 7 and 42, DeRose teaches all the claimed subject matters as discussed in claims 5 and 40, DeRose further discloses: *the attributes of the descriptor components are a persistent item of the description scheme* (DeRose, Col. 8, line 41-Col. 9, line 11).

Regarding to claims 8 and 43, DeRose teaches all the claimed subject matters as discussed in claims 5 and 40, DeRose further discloses: *the attributes of the descriptor components are instantiated by an application when required* (DeRose, Col. 8, line 41-Col. 9, line 11).

Regarding to claims 9 and 44, DeRose teaches all the claimed subject matters as discussed in claims 8 and 43, DeRose further discloses: *the attributes of the descriptor components are instantiated using a rule that is associated with the description scheme* (DeRose, Col. 8, line 41-Col. 9, line 11).

Regarding to claims 10 and 45, DeRose teaches all the claimed subject matters as discussed in claims 1 and 36, DeRose further discloses: *the resources comprise an item of digital content* (DeRose, Col. 8, lines 19-26).

Regarding to claims 11 and 46, DeRose teaches all the claimed subject matters as discussed in claims 1 and 36, DeRose further discloses: *the resources comprise an electronic document or resource available over the World Wide Web* (DeRose, Col. 7, lines 60-66 and Col. 24, lines 4-18).

Regarding to claims 12 and 47, DeRose teaches all the claimed subject matters as discussed in claims 1 and 36, DeRose further discloses: *the resources comprise an electronic device* (DeRose FIG. 1, Col. 7).

Regarding to claims 13 and 48, DeRose teaches all the claimed subject matters as discussed in claims 1 and 36, DeRose further discloses: *each of the description contains links to identified sections of a resource* (DeRose, FIG. 3, Col. 8).

Regarding to claims 14 and 49, DeRose teaches all the claimed subject matters as discussed in claims 117 and 118, DeRose further discloses: *axes of access are determined by rules operating on the description* (DeRose, Col. 13, line 4-Col. 14, line 41 and Col. 16, lines 22-37).

Regarding to claims 15 and 50, DeRose teaches all the claimed subject matters as discussed in claims 117 and 118, DeRose further discloses: *axes of access are determined during the generation of the description of the resource* (DeRose, Col. 12, lines 53-67).

Regarding to claims 16 and 51, DeRose teaches all the claimed subject matters as discussed in claims 117 and 118, DeRose further discloses: *attributes of said descriptor components representative of said at least two axes of access are inferred from the content of the description* (DeRose, FIG. 12).

Regarding to claims 17 and 52, DeRose teaches all the claimed subject matters as discussed in claims 16 and 51, DeRose further discloses: *attribute of a said descriptor component is inferred to be a table of content descriptor if the said descriptor component contains a reference to a resource or a section of a resource* (DeRose, FIG. 12).

Regarding to claims 18 and 53, DeRose teaches all the claimed subject matters as discussed in claims 17 and 52, DeRose further discloses: *attribute of a said descriptor component is inferred to be an index descriptor if the said descriptor component is not inferred to be a table of contents descriptor* (DeRose, FIG. 12).

Regarding to claims 32, 67 and 74, DeRose teaches a method and system for generating a representation of an electronic document, indexing and navigating the electronic document using its representation and for displaying the electronic document on an output device. The electronic document is considered as an *electronically-accessible resource*. The system and method are used with electronic documents having descriptive markup, which describes the content or meaning of the document rather than its appearance. Each markup element defines a node or element in a tree. The tree is represented by providing a unique identifier for each element and for accessing a descriptor of the element. An element descriptor preferably includes indications of the parent, first child, last child, left sibling, right sibling, type name and text location for the element as shown in FIG. 6. As shown in FIG. 12, the table of contents displaying items corresponding to an electronic document and a lookup window for searching a given word in a document by using technique of indexing (Abstract, FIG. 6 and FIG. 12). The DeRose method and system receives as its input a document, represented in electronic form, which includes text content, descriptive markup and possibly non-text content. The descriptive markup of an input document is interpretable as an ordered hierarchy of content objects as illustrated in FIG. 3 (Col. 7, line 60-Col. 8, line 7). As shown in FIG. 8 is the process for generating an element directory. The process is initialized at step 110, and the token from the parser is retrieved at step 112 (DeRose, Col. 10, line 36-Col. 12, line 52). This technique indicates the step of *reading one or more descriptions*. DeRose teaches that in a document, an element, e.g. element 50 of FIG. 3, may have a parent element (52), a first child element (54), a last child element (56), a left sibling element

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(58), and a right sibling element (60). Because the right sibling of element 50 does not exist in the document, it is defined by "nil", or some non-element identifier. A document may also include other types of elements, which do not describe function, meaning or appearance of the text. These types of elements include cross-referencing elements 62 which may be used to link relevant sections of a document or even separate documents. Artwork elements 64 may be used to point to non-text objects, such as graphic raster files, which also may be separate electronic documents (Col. 8, lines 8-27). The DeRose FIG. 5 is a representation of the tree structure generated from the sample SGML document of FIG. 4. Each element as *item* defined by the markup structure of the SGML such as BOOK, FRONT MATTER, TITLE, AUTHOR... is assigned a reference numbers, or element identifiers, to each element appearing in the document according to the order of appearance of these elements in the document. As shown in FIG. 6, the element directory 91 is used to improve navigation of the document. As shown in FIG. 12, the table of contents displaying items corresponding to an electronic document. As discussed above and in short, the DeRose technique indicates the step of *displaying a table of contents containing table of content items, each table of contents item being associated with a corresponding descriptor component that has a table of contents attribute*. DeRose further discloses the step of *selecting one displayed table of contents item for annotation* (Col. 22, line 65-Col. 23, line 39). The DeRose FIGS. 12-14 illustrates the step of *displaying an index containing index items* and DeRose further discloses *each displayed index item being associated with a corresponding descriptor component that has an index attribute and is associated with the selected table of contents item*

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(Col. 13, lines 43). As shown in LOOKUP WINDOW screen of FIG. 12, by *selecting one displayed index item* such as "SHOES", the term is *associating the selected displayed index item with the selected table of contents item* as shown in TEXT VIEW screen. DeRose does not explicitly teach the steps of *choosing a representative value for the selected index item; and associating the chosen representative value with the feature which corresponds to the selected index item, wherein the chosen representative value and its corresponding feature provide an annotation of the resource*. However, DeRose discloses: another feature provided by the indexing and rendering methods that enables cumulative search statistics to be displayed in combination with the table of contents as shown in FIGS. 12-13 by instructing the system to search on a given word in a document. The elements in which the selected word occurs may be determined from the frequency record for the selected word. By providing a style sheet for the table of contents which directs the rendering process to examine a selected variable, e.g. "word", which may store a value indicative of a selected search word, when a table of contents then is displayed, the number of occurrences in the element corresponding to the item for the selected word may be retrieved from its frequency record and displayed. Thus, a user may know how many times a word occurs in each section of a document whose table of contents item is displayed. A user may then determine relevant portions of the displayed document (Col. 17, lines 30-46). This technique indicates the steps of *choosing a representative value for the selected index item; and associating the chosen representative value with the feature which corresponds to the selected index item, wherein the chosen representative value and its corresponding feature provide an annotation of the resource*. Therefore, it would

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have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose method by separating the table of content from the resources and including the step of choosing a representative value, and by doing this, an electronic document could be navigated by using its representation.

Regarding to claims 33 and 68, DeRose teaches all the claimed subject matters as discussed in claim 32, DeRose further discloses: *description read in said reading step is represented by a tree of descriptor components, and one or more of the descriptor components have descriptor components as descendants* (DeRose, FIG. 3, Col. 7, line 60-Col. 8, line 27).

Regarding to claims 34 and 69, DeRose teaches all the claimed subject matters as discussed in claim 32, but fails to disclose the step of *associating the selected display index item is allowed only if the corresponding descriptor of the selected display index item is a valid descriptor for the table of contents item selected for annotation*. However, as shown in FIG. 12, if a user enter a word is not in the document at LOOKUP WINDOW screen, the step of associating obviously will not be allowed. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose method by including the step of allowing in order to associate an index item with a table of content item.

Regarding to claim 35, DeRose teaches all the claimed subject matters as discussed in claim 32, DeRose further discloses the step of *choosing a representative value is predetermined* (DeRose, Col. 17, lines 30-46).

Regarding to claim 70, DeRose teaches all the claimed subject matters as discussed in claim 67, DeRose further discloses: *operation of said means for selecting one said table of contents item is optional and if not performed said means for displaying an index displays all said index items associated with all said table of contents items* (DeRose, FIG. 12).

Conclusion

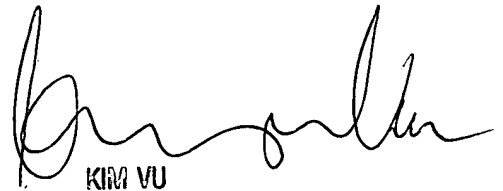
5. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Pham whose telephone number is 703-605 4242. The examiner can normally be reached on Monday-Friday, 7:00 Am - 3:30 Pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, VU, KIM YEN can be reached on 703-305 4393. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746 7239 for regular communications and 703-746 7238 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305 3900.

Examiner: Hung Pham
February 18, 2003



KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100